

REMARKS/ARGUMENTS

In the Non-Final Office Action of November 6, 2006 (the "Office Action"):

1. Claims 18, 19, 21, 22, 30 and 31 are rejected under 35 USC 103(a) as being unpatentable over U.S. 6,726,699 issued to Wright et al. ("Wright") as a matter of design choice;
2. Claims 23 and 24 are rejected under 35 USC 103(a) as being unpatentable over Wright as a matter of design choice, and further in view of U.S. 6,224,608 issued to Ciccolella et al. ("Ciccolella"); and
3. Claims 23 and 25-29 are rejected under 35 USC 103(a) as being unpatentable over Wright as a matter of design choice, and further in view of U.S. 4,655,752 issued to Honkanen et al. ("Honkanen").

1. Rejection of Claims 18, 19, 21, 22, 30 and 31 under 35 USC 103(a) in light of Wright as a matter of design choice

Claim 18 claims a tool guide comprising an elongate body and an engaging formation defined within a passage of the body, wherein the engaging formation is arranged "to hold and provide a stop for a complementary engaging formation on a robotic arm so that a passage defined within the complementary engaging formation is aligned with the passage of the elongate body."

As conceded in the Office Action, Wright does not disclose such an engaging formation.

Per applicants' prior communication, a commercialized version of Wright's instrument guide 24 has a protruded formation which may be inserted into a receptive formation on Wrights' tool driver 20 and locked in placed either by a twisting action or by engaging a spring-loaded pin.

Nonetheless, the Office Action rejects Claim 18 taking the position that although Wright teaches an engaging formation that is on the outside of the body, it would have been an obvious matter of design choice to provide the engaging formation on the inside of the tool guide, since applicant has not disclosed that providing the engaging surface on the inside of the device provides any advantage over providing the engaging surface on the outside of the tool, and it appears that the device of Wright performs the task of engaging the elongate body of the robotic arm equally well as that of the disclosed application.

The Office Action's rejection in this case, however, is believed to be incorrect as a matter of law. The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims, however, is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of applicants' specification, to make the necessary changes in the reference device. *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984); and MPEP 2144.04(VI)(C).

No such motivation or reason is proffered in the Office Action, other then perhaps the statement that "it appears that the device of Wright performs the task of engaging the elongate body to the robotic arm equally as well as that of the disclosed application." However, this is merely an "opinion of the Examiner", it is not "a motivation or reason" to make the necessary changes in the reference device, as required by law to reject Claim 18 under 35 USC 103(a).

Accordingly, Claim 18 is believed to be patentable under 35 USC 103(a) over Wright for at least the foregoing reasons.

Claims 19, 21, 22, 30 and 31 are also believed to be patentable under 35 USC 103(a) over Wright since they depend from Claim 18, and as such, are believed to be patentable for at least the same reasons as stated in reference to Claim 18.

New Claim 34 claims a method for guiding a surgical instrument to a surgical site in a patient body in which a tool guide is inserted in an aperture of the patient body so as to be directed towards the surgical site; a complementary engaging formation on a robotic arm is positioned with respect to an engaging formation of the tool guide so that their respective passages are aligned and the complementary engaging formation is held and stopped by the engaging formation; and an end effector of the surgical instrument is passed through the aligned passages so as to be guided to the surgical site in the patient body, and such a sequence of actions is neither taught nor suggested by Wright.

Page 8, paragraphs [0089] to [0091] of applicants' published application provides the requisite support for claiming the method.

Not only does Wright fail to teach such a sequence, a difference sequence is logically deduced from its description. From FIG. 1 of Wright, it is logical to conclude that the instrument 12 must be coupled to the tool driver 20 before the instrument guide 24 is coupled to the tool driver 20, because if the reverse sequence was performed, then the instrument 12 would have to be forced back through the guide tip 28, and in particular,

backward through leaves 30, which is contrary to their purpose and the description in Wright. See, Col. 2, lines 55-58. Accordingly, the sequence of setting up the instrument so as to be guided to the surgical site is deemed to be different in Wright than as claimed in Claim 34 (i.e., in Wright, the end effector of the surgical instrument must be passed through the aligned passages “before” the complementary engaging formation on the robotic arm is held and stopped by the engaging formation on the tool guide, not “after” as recited in Claim 34).

In contrast, in applicants’ preferred embodiment, the complementary engaging formation 442 (as shown in FIG. 13) is a tubular guide 60 on the robotic arm 26 (as shown in FIGS. 9 and 10). See, paragraph [0089] of the published application. When the guide 60 is inserted in the tool guide 410, it resembles an extended version of the tool guide 410 that is now coupled to the robotic arm 26. With the carriage 37 in its retracted position (as shown in FIGS. 9 and 10), the housing 34 of the instrument 28 may be attached to the carriage 37 without its end effector 40 passing through the aligned passages of the guide 60 and tool guide 410. By moving the carriage 37 downward, the end effector 40 may then be passed through the aligned passages towards the surgical site in the patient.

It is believed to be much easier to align and engage the guide 60 to the tool guide 410 before inserting the end effector 40 through the guide 60. If the end effector 40 is already passing through the guide 60, then the alignment task should be performed carefully in order to avoid damaging the end effector by accidentally pushing it up against the tool guide 410. This is made difficult, because it is necessary to move the entire

robotic arm to perform the alignment. Therefore, there is clearly a benefit by performing the process in the sequence recited in Claim 34, and as previously explained, is different than the sequence concluded to be performed in Wright.

Accordingly, new Claim 34 is believed to be patentable under 35 USC 103(a) over Wright for at least the foregoing reasons.

New Claims 35-37 are also believed to be patentable under 35 USC 103(a) over Wright since they depend from Claim 34, and as such, are believed to be patentable for at least the same reasons as stated in reference to Claim 34.

New Claim 38 claims a medical robotic system having first and second tool guides, for example, such as the tool guide 411 and the guide 60 described in applicants' description of the preferred embodiment, and such a medical robotic system is believed to be neither taught nor suggested by Wright for much the same reasons stated previously with respect to Claims 18 and 34.

Accordingly, new Claim 38 is believed to be patentable under 35 USC 103(a) over Wright for the foregoing reasons.

New Claim 39 is also believed to be patentable under 35 USC 103(a) over Wright since it depends from Claim 38, and as such, is believed to be patentable for at least the same reasons as stated in reference to Claim 38.

2. Rejection of Claims 23, 24 under 35 USC 103(a) in light of Wright & Ciccolella

Claims 23 and 24 are believed to be patentable under 35 USC 103(a) in light of Wright and Ciccolella since they depend from Claim 18, and as such, are believed to be patentable for at least the same reasons as stated in reference to Claim 18, as well as any other reasons stated in previous communications.

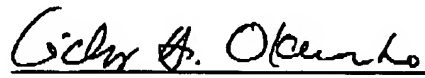
3. Rejection of Claims 23, 25-29 under 35 USC 103(a) in light of Wright & Honkanen

Claims 23 and 25-29 are believed to be patentable under 35 USC 103(a) in light of Wright and Ciccolella since they depend from Claim 18, and as such, are believed to be patentable for at least the same reasons as stated in reference to Claim 18, as well as any other reasons stated in previous communications.

Claims 18, 19, 21-31, and new claims 34-39 remain pending in the application. Claims 1-17, 20, and 32-33 have been cancelled. Reconsideration of the rejection of the pending claims is respectfully requested, and an early notice of their allowance earnestly solicited.

Respectfully submitted,

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Victor H. Okumoto
Registration No. 35,973
Office Phone: (510) 792-1112

Applic. Serial No.: 10/624,848

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